

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:)	Examiner: Truong, Thanhnga B.
)	
Dunstan, Robert A.)	Art Unit: 2113
)	
Application No.: 10/644,432)	Confirmation No.: 7514
)	
Filed: August 19, 2003)	
)	
For: OPERATIONAL STATE)	
PRESERVATION IN THE)	
ABSENCE OF AC POWER)	
_____)	

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Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

REPLY TO EXAMINER'S ANSWER

Dear Sir:

This is a Reply to Examiner's Answer mailed July 12, 2007. Appellant relies on the arguments made in support of the allowability of all pending claims presented in the Appeal Brief dated May 24, 2007. However, Appellant replies to particular arguments of the Examiner's Answer as follows:

Related Appeals and Interferences

As Examiner points out, Appellant is aware of the pending Appeal of the final rejection of application 10/644,648. However, Appellant argues that issues in that appeal, including the rejections under 35 U.S.C. § 112, are not relevant to the issues raised in this appeal. Appellants point out that Examiner has not indicated how that appeal could effect the disposition of the current appeal.

Claim1

Appellant in the Supplemental Appeal Brief dated May 24, 2007 argued that Westerinen does not disclose intervening and preserving "a persistent copy of an

operational state of the apparatus, before completing the suspend process” as required by claim 1, but rather that the Westerinen method discloses preserving a persistent copy of the operational state only after completing the suspend process and waking the system. In response, Examiner points to Figure 4, items 96, 98, and 100 and paragraph [0033] which, according to Examiner, “show the state is saved before entering into hibernation mode.” Examiner is correct that Westerinen does disclose that an operational state is saved before entering into a hibernation state. However, the “suspend” process of claim 1 is “a suspend process to place the apparatus in a suspended to memory state, to be sustained by the supplied backup power.” The hibernation state of Westerinen is not such a state, but is rather described as an S4 state of the ACPI.

One of ordinary skill will recognize that a hibernation state, or an S4 state, is a suspended to disk state, wherein a state of the apparatus is saved to a hard disk, rather than a suspended to memory state, where a state of the apparatus is saved to system memory. Further, the “suspended to memory state” of claim 1 is required to be “sustained by the supplied backup power”. The hibernation state is not so sustained. It is true that the system of Westerinen briefly runs on backup power while in a hibernated state (see block 100 of figure 4), but the hibernation state is not “sustained” by this power. This is made clear by the fact that the Westerinen system is capable of being restored even though system power is fully turned off while in the hibernation state (see figure 4, item 102). Also, Westerinen does enter into a suspend to memory state (see figure 4 item 96), but the system does not save a persistent copy of this state before completing that suspend process; rather it completes the suspend to memory process and then transitions into a working state (item 98) before saving the persistent state (item 100). Thus, Westerinen fails to disclose intervening and preserving “a persistent copy of an operational state of the apparatus, before completing the suspend process” wherein the suspend process is a “suspend to memory process, to be sustained by the supplied backup power” as required by claim 1. For at least this reason, claim 1 is patentable over Westerinen.

Claim 4

In addition to the arguments presented above with respect to claim 1 – from which claim 4 depends– Appellant also argued in the Appeal Brief that Westerinen fails to teach “transferring control to an input/output system (BIOS) of the apparatus”. In response, Examiner cites paragraph [0028] of Westerinen which discusses the ACPI which Examiner asserts is part of the BIOS in modern systems. First, Examiner cites no evidence that the ACPI is part of BIOS. Second, paragraph [0028] discusses only that the ACPI defines a _BST and _PRW object which run as part of a battery driver that is part of the operating system. The _BST object reports battery critical flags to the operating system, and in response the operating system initiates hibernation. Thus, rather than the BIOS, it is the operating system that saves the operational state into persistent storage. Accordingly, regardless of whether the ACPI is part of the BIOS or not, there is no disclosure in paragraph [0028], or anywhere within Westerinen, that “the intervening comprises transferring control to an input/output_(BIOS) of the apparatus; and the preserving comprises the BIOS saving the operational state of the apparatus to a persistent storage” as required by claim 4. Thus, for at least this additional reason, claim 4 is patentable over Westerinen.

Claim 8

In Appellant’s Appeal Brief, it was argued that Westerinen does not disclose “monitoring for re-application of AC to the apparatus while the apparatus is in the suspended to memory state maintained by the backup power source” as required by claim 8. In response, Examiner argues that paragraphs [0024] and [0025] of Westerinen teach saving an operational state of the computer using backup power and that paragraph [0026] monitors for AC reapplication of AC power. Assuming *arguendo* that paragraph [0026] does teach monitoring for reapplication of AC power, it does not disclose “monitoring for re-application of AC to the apparatus while the apparatus is in the suspended to memory state maintained by the backup power source” as required by claim 8. Further, to the degree which Westerinen *does* teach monitoring for reapplication of AC power, it does so only while the system is in a hibernation state (i.e.

suspended to disk). It does not teach monitoring for AC reapplication while the system is suspended to memory. See Figure 4, items 96-106. Thus, for at least these reasons, claim 8 is patentable over Westerinen.

Claim 21

In Appellant's Appeal Brief, it was argued that Westerinen fails to teach "a controller operatively coupled to the BIOS to cause the BIOS to initiate the resume process on re-application of AC to the system" as required by claim 21. In response, the Examiner points to paragraphs [0030] and [0031] and argues that this limitation is disclosed therein. As Appellants argued in their Appeal Brief, those paragraphs merely teach that the Westerinen system places the system into a hibernation state, rather than initiating a "resume process and place the system into an active state" as required by claim 21.

Also, in the Appeal Brief, Appellant argued that Westerinen fails to teach causing "the BIOS to initiate the resume process upon re-application of AC power" but rather that it is the operating system which causes the system to initiate the resume process. As far as Appellant can tell, Examiner makes no arguments in response to this particular argument.

For at least these reasons, claim 21 is patentable over Westerinen.

Claim 28

In the Appeal Brief, Appellant argued that Westerinen does not disclose "intervening and saving a persistent copy of an operational state of the apparatus, before allowing a suspend process initiated in response to an AC failure condition of the apparatus to place the apparatus in a suspended to memory state to complete" as required by claim 1. In response, Examiner cites paragraph [0035] and argues that Westerinen does teach intervening and saving a persistent copy prior to the completion of a hibernation state. However, as argued above, a suspend to memory state is not the same as a hibernation state. While Westerinen does disclose putting the apparatus into a suspended to memory state as used in claim 1, it does not teach intervening into

such a suspend to memory state to save a persistent state of the apparatus as required by claim 28. Rather, Westerinen teaches a suspend to disk operation (i.e. hibernation) wherein the apparatus saves a persistent copy to a hard drive. Thus, not all elements of claim 28 are taught by Westerinen and claim 28 is, accordingly, patentable over Westerinen.

Conclusion

As Applicant has set forth in the appeal brief, the rejections are in error. Accordingly, Applicant respectfully requests that the Board reverse the Examiner's rejections.

Please charge any shortages and credit any overages to Deposit Account No. 500393.

Respectfully submitted,
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